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**Datasheet for the decision
of 12 January 2017**

Case Number: T 1115/14 - 3.3.03

Application Number: 08837533.2

Publication Number: 2203493

IPC: C08G18/10, C08G18/62, C08L75/04

Language of the proceedings: EN

Title of invention:
MOISTURE CURABLE ISOCYANATE CONTAINING ACRYLIC FORMULATION

Applicant:
Illinois Tool Works Inc.

Headword:

Relevant legal provisions:
EPC Art. 123(2), 84
RPBA Art. 15(3)

Keyword:
Amendments - allowable (no)

Decisions cited:

Catchword:



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Case Number: T 1115/14 - 3.3.03

D E C I S I O N
of Technical Board of Appeal 3.3.03
of 12 January 2017

Appellant: Illinois Tool Works Inc.
(Applicant) 155 Harlem Avenue
Glenview, IL 60025 (US)

Representative: Johnson, Lucy Elizabeth
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 16 December
2013 refusing European patent application No.
08837533.2 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman D. Marquis
Members: M. C. Gordon
R. Cramer

Summary of Facts and Submissions

I. The appeal lies from the decision of the examining division announced on 11 November 2013 and posted on 16 December 2013 refusing European patent application number EP 08 837 533.2, publication number EP-A-2203493, derived from international application number PCT/US2008/079535, published under the number WO 2009/049173).

Claims 1, 3, 4 and 6 of the application as originally filed read as follows:

"1. A moisture curable acrylic formulation comprising:
a majority by weight polyacrylic prepolymer having an average molecular weight of between 3,000 and 600,000 grams per mole and between 2 and 4 inclusive moisture curable functional moieties of isocyanate or silane per prepolymer;

a thermoplastic adhesive resin with the proviso that said thermoplastic adhesive resin is ethylene vinyl acetate resin when the moisture curable functional acrylic moieties are all silane in each of said plurality of polyacrylic prepolymers;

a silane molecule, wherein said thermoplastic adhesive resin is present in an amount to provide a shear strength to the formulation of at least 10 pounds per square inch when applied to a thickness of 0.75 millimeters between a glass substrate and a vinyl article 15 minutes after application at 120°C Celsius in ambient atmospheric air.

3. The formulation of claim 1 wherein said plurality of polyacrylic prepolymers are present from 35 to 80 total weight percent of the formulation.

4. The formulation of claim 1 wherein said plurality of polyacrylic prepolymers have an average molecular

weight of between 5,000 and 400,000 grams per mole and a glass transition temperature of between -50 and 25° Celsius.

6. The formulation of claim 1 wherein said thermoplastic adhesive resin is ethylene vinyl acetate present in an amount of between 10 and 40 total weight percent of the formulation."

II. The decision was based on an amended set of claims filed with letter dated 11 October 2013 the wording of which is not relevant for this decision.

According to the decision neither the requirements of Art. 84 EPC or Art. 123(2) EPC were satisfied.

Consequently the application was refused.

III. The applicant filed an appeal, submitting a set of further amended claims.

IV. In a communication pursuant to Article 17 RPBA the Board gave its preliminary opinion that deficiencies pursuant to Articles 84 and 123(2) EPC remained in the newly submitted claims.

V. The appellant submitted with letter dated 9 December 2015 two further amended sets of claims forming a main and an auxiliary request.

Claim 1 of the main request read as follows:

"A moisture curable composition consisting of, based on the total weight of formulation:

35 to 80% by weight polyacrylic prepolymer having an average molecular weight of between 5,000 and 400,000 grams per mole and between 2 and 4 inclusive moisture

curable isocyanate functional moieties per prepolymer and a glass transition temperature of between -50 and 25°C;

10 to 40% by weight thermoplastic adhesive ethylene vinyl acetate resin;

0.1 to 5% by weight a [sic] silane molecule selected from methyltrimethoxysilane, dimethyldimethoxysilane, trimethylmethoxysilane, methyltriethoxysilane, dimethyldiethoxysilane, methyltriethoxysilane, phenyltrimethoxysilane, diphenyldimethoxysilane, triphenylmethoxysilane, phenyltriethoxysilane, diphenyldiethoxysilane, vinyltriacetoxysilane, methyltri(dimethylamino)silane, methyltri(N,N-methylethylamino)silane, methyltri(N-methyl-N-acetylamino)silane, methyltri(isopropenoxy)silane, vinyltrimethoxysilane, vinyltriethoxysilane, γ -methacryloxypropylmethyltrimethoxysilane, γ -methacryloxypropylmethyldimethoxysilane, methyltriacetoxysilane, γ -glycidoxypropyltrimethoxysilane, γ -aminopropyltriethoxysilane, beta-(3,4-epoxycyclohexyl)ethyltrimethoxysilane, γ -aminopropyltrimethoxysilane, N-(2-aminoethyl)- γ -aminopropyltrimethoxysilane, N-(2-aminoethyl)- γ -aminopropylmethyldimethoxysilane, N-(2-aminoethyl)aminomethyltrimethoxysilane, dimethoxymethyl-3-piperazinopropylsilane, 3-piperazinopropyltrimethoxysilane, N-(3-triethoxysilylpropyl)urea, N-phenyl- γ -aminopropyltrimethoxysilane, and partial hydrolysis condensates of any of the above organic silanes,
0-30% by weight tackifier,
0-20% by weight solvent,
0-20% by weight filler and
0-20% by weight thixotropic agent."

Claim 1 of the first auxiliary request differed from that of the main request in that the permissible ranges of the amounts of components at the beginning and end of the claim had been restricted, in particular that the lower limits of the quantities of the four components in the final part of the claim were now non-zero meaning that these components were now compulsory. The precise wording of this claim is however not relevant for the decision.

VI. On 1 February 2016 the board issued a summons to attend oral proceedings. In an accompanying communication the Board gave its opinion that defects previously identified in respect of Articles 84 and 123(2) EPC remained for both requests.

VII. The appellant announced by letter dated 19 December 2016 that it would not attend the oral proceedings.

VIII. Oral proceedings were held on 12 January 2017. As notified, the appellant did not attend. At the conclusion of the oral proceedings the board announced its decision.

IX. The arguments of the appellant, insofar as relevant for this decision can be summarised as follows:

(a) Main request:

Article 123(2) EPC:

The subject matter constituted a combination of the subject-matter of claims 1, 3 and 4 and part of the description. Due to the dependencies of the claims, the skilled person would read the original description as allowing for and not excluding a combination of the features of claim 1 with those of both claims 3 and 4. There was nothing to

suggest that the features of claims 3 and 4 were incompatible. Furthermore the amounts of components were disclosed at the same level of preference in the application as originally filed and the example related to a combination of features of the indicated claims.

The deletion of functional features, i.e. shear strength properties of the compositions was permissible since it had not been shown that the compositions would not inevitably exhibit such features. Thus the specification of the shear strength could be replaced by definition of the quantitative amounts and types of components.

(b) Auxiliary request

Article 123(2) EPC

Claim 1 was limited to preferred amounts of the components emphasising that the defined compositions necessarily exhibited the deleted qualities.

- X. The appellant (applicant) requested that the decision under appeal be set aside and that the claims according to either the main request or the auxiliary request, both requests filed with letter dated 9 December 2015 be found to meet the requirements of Article 84 EPC and Article 123(2) EPC and that the case be remitted to the examining division for examination of the requirements of Articles 54 and 56 EPC.

Reasons for the Decision

1. Although duly summoned to the oral proceedings, the appellant/applicant indicated in writing its intention not to attend.

Pursuant to Article 15(3) RPBA the oral proceedings were held in the absence of the appellant who is treated as relying on its written submissions. Consequently a decision is possible.

2. Main request

2.1 Article 123(2) EPC

Present claim 1 combines features of originally filed claims 1, 3, 4 and 6 as well as features taken from pages 9 and 10 of the description (definition of the silanes).

Thus the features "moisture curable acrylic formulation", and number of moisture curable isocyanate functional groups is derived from original claim 1.

The content of polyacrylic polymer is derived from claim 3 which is dependent on claim 1.

The molecular weight of the polyacrylic polymer is disclosed in claim 4 as originally filed, as is the glass transition temperature. Claim 4 was dependent only on claim 1 and not on e.g. "any preceding claim".

The presence of thermoplastic adhesive ethylene vinyl acetate resin in the specified amount is disclosed in originally filed claim 6 which again is solely dependent on claim 1.

Thus regarding the combination of features to be found in original claims 1, 3, 4 and 6, the indicated claims are, as argued by the appellant, individually dependent on original claim 1. However the structure of dependencies does not give rise to or disclose the combination of features now specified. Nor is such combination disclosed in or derivable from the

discussion of the relevant features in the description of the application. Consequently there is no basis in the application as originally filed for the claimed combination of features. Although the example of the application does relate to a composition having in combination features of claims 1, 3 and 4, this specific composition cannot provide a basis for the combination of features in the generality as defined in operative claim 1.

Regarding the argument of the appellant that the original disclosure of the claims would, in view of the dependencies, be read as "allowing for and not excluding" the subject-matter now claimed, this is not the issue. Rather the question to be addressed is whether this subject-matter was disclosed, either explicitly or directly and implicitly in the application as originally filed. As explained above, no such disclosure however exists.

Regarding the specification of the silanes in claim 1 it is noted that in the application as originally filed paragraph [0021] discloses the optional presence of an adhesion promoter. The third and fourth sentences of this paragraph read as follows:

"While a variety of adhesion promoters are conventional in the art and illustratively include glycols, silanes, acrylic oligomers, and tertiary amines. Preferably an adhesion promoter in an inventive formulation is a silane".

As noted in the communication of the board, and not disputed by the appellant, it appears either that a part of the first sentence is missing, or, more likely, that the two sentences should in fact be a single sentence with a comma separating the two parts. Based on the latter reading the passage in question

discloses a number of permissible adhesion promoters, and that silanes are preferred.

Based on this interpretation the specification of silanes represents a first selection from the possible adhesion promoters.

The list of silanes following this statement in the application as originally filed is incorporated in its entirety in the claim.

However the specified amount is originally disclosed in the final lines of paragraph [0021] and applies to all possible adhesion promoters, including the non-preferred ones referred to above. Furthermore the amounts specified in the claim correspond to the more preferred range of the amount thereof.

Consequently the definition of the silane compounds in the specified amount would result from two selections from the disclosure of the application as originally filed, the first selection being the restriction to silanes, the second a restriction to the more preferred range.

In accordance with established case law, features resulting from such a "double selection" cannot be considered as having been explicitly disclosed in the application as filed.

For the above indicated reasons, the subject matter of claim 1 is the result of a plurality of selections and/or combinations of different aspects of the subject-matter disclosed in the application as filed, for which combination, in the generality defined, there is no explicit or implicit basis, even taking into account the dependencies of the claims or other indications in the description and examples.

Furthermore, the functional feature of the originally filed claims relating to the shear strength had the

effect of imposing a restriction, of some kind, on the subject-matter thereof. If it is to be accepted, as submitted by the appellant, that the deletion of said feature does not result in any extension of the subject-matter claimed beyond the content of the application as filed, then it would have been for the appellant to demonstrate that this is so. This has however not been shown. Accordingly the deletion of the restriction constituted by the specification of the shear strength has to be seen as resulting in an extension of some kind of the subject-matter claimed beyond that disclosed in the application as filed.

For the above reasons, the main request does not meet the requirements of Article 123(2) EPC.

2.2 Under these circumstances it is not necessary to address the matter of compliance with Article 84 EPC.

3. Auxiliary request

In claim 1 of this request the amounts of components have been restricted resulting in the objection in respect of the combination of features of claims 1, 3, 4 and 6 being overcome.

However the defects noted in respect of the omission of the feature relating to the shear strength, and the specification of the silane (multiple selection) remain.

Consequently the auxiliary request does not meet the requirements of Art. 123(2) EPC.

Order

For these reasons it is decided that:

1. The appeal is dismissed.

The Registrar:

The Chairman:



B. ter Heijden

D. Marquis

Decision electronically authenticated